

## PCT

CORRECTED VERSION

## INTERNATIONAL SEARCH REPORT

(PCT Article 18 and Rules 43 and 44)

Applicant's or agent's file reference P712426/DGB	<b>FOR FURTHER ACTION</b> see Form PCT/ISA/220 as well as, where applicable, item 5 below.	
International application No. PCT/GB2004/004738	International filing date (day/month/year) 10/11/2004	(Earliest) Priority Date (day/month/year) 28/11/2003
Applicant  ARCH UK BIOCIDES LIMITED		

This International Search Report has been prepared by this International Searching Authority and is transmitted to the applicant according to Article 18. A copy is being transmitted to the International Bureau.

This International Search Report consists of a total of 4 sheets.

☒ It is also accompanied by a copy of each prior art document cited in this report.

## 1. Basis of the report

- a. With regard to the **language**, the international search was carried out on the basis of the international application in the language in which it was filed, unless otherwise indicated under this item.

☐ The international search was carried out on the basis of a translation of the international application furnished to this Authority (Rule 23.1(b)).

- b. ☐ With regard to any **nucleotide and/or amino acid sequence** disclosed in the international application, see Box No. I.

2. ☐ **Certain claims were found unsearchable** (See Box II).

3. ☐ **Unity of invention is lacking** (see Box III).

4. With regard to the **title**,

☒ the text is approved as submitted by the applicant.

☐ the text has been established by this Authority to read as follows:

5. With regard to the **abstract**,

☒ the text is approved as submitted by the applicant.

☐ the text has been established, according to Rule 38.2(b), by this Authority as it appears in Box No. IV. The applicant may, within one month from the date of mailing of this international search report, submit comments to this Authority.

6. With regard to the **drawings**,

- a. the figure of the **drawings** to be published with the abstract is Figure No. \_\_\_\_\_

☐ as suggested by the applicant.

☐ as selected by this Authority, because the applicant failed to suggest a figure.

☐ as selected by this Authority, because this figure better characterizes the invention.

- b. ☐ none of the figures is to be published with the abstract.

## A. CLASSIFICATION OF SUBJECT MATTER

IPC 7 D06M13/432 D06M16/00 D06M15/423 D06M15/41 D06M11/13  
D06M11/55 A01N47/44 A61L2/16

According to International Patent Classification (IPC) or to both national classification and IPC

## B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

IPC 7 D06M A01N A61L

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)

EPO-Internal, WPI Data, PAJ

## C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
1 X	WO 95/12021 A (ZENECA LIMITED; PAYNE, JOHN, DAVID) 4 May 1995 (1995-05-04) page 1, line 26 - page 4, line 44 page 6, line 36 - page 7, line 39; examples	19,21, 23,24
10 X	PATENT ABSTRACTS OF JAPAN vol. 016, no. 156 (C-0930), 16 April 1992 (1992-04-16) & JP 04 011076 A (UNITIKA LTD), 16 January 1992 (1992-01-16) abstract ----- -/--	19-26

☒ Further documents are listed in the continuation of box C.

☒ Patent family members are listed in annex.

## \* Special categories of cited documents :

"A" document defining the general state of the art which is not considered to be of particular relevance

"E" earlier document but published on or after the international filing date

"L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)

"O" document referring to an oral disclosure, use, exhibition or other means

"P" document published prior to the international filing date but later than the priority date claimed

"T" later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention

"X" document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone

"Y" document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art.

"&" document member of the same patent family

Date of the actual completion of the international search

10 August 2005

Date of mailing of the international search report

16. 08. 2005

Name and mailing address of the ISA

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Authorized officer

Koegler-Hoffmann, S

C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT		
Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
2 X	US 2001/021616 A1 (BULLOCK KYLE ET AL) 13 September 2001 (2001-09-13) paragraph [0014] paragraph [0072] - paragraph [0074] paragraph [0120] paragraph [0124] - paragraph [0128] paragraph [0131] -----	1-7,9, 10,12
2 X	US 3 082 118 A (SHAW JOHN T ET AL) 19 March 1963 (1963-03-19)  column 1, line 1 - line 35 column 2, line 26 - line 29 column 3, line 26 - column 5, line 43 -----	1-4, 13-16, 19-26
2		

Patent document cited in search report		Publication date	Patent family member(s)	Publication date
WO 9512021	A	04-05-1995	AU 7790294 A	22-05-1995
			EP 0724659 A1	07-08-1996
			WO 9512021 A1	04-05-1995
			JP 9504343 T	28-04-1997
			US 5700742 A	23-12-1997
			ZA 9407973 A	02-05-1995
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JP 04011076	A	16-01-1992	NONE	
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US 2001021616	A1	13-09-2001	US 6251210 B1	26-06-2001
			US 6024823 A	15-02-2000
			US 6207250 B1	27-03-2001
			US 2004018787 A1	29-01-2004
			US 2003008585 A1	09-01-2003
			US 6165920 A	26-12-2000
			US 6492001 B1	10-12-2002
			AU 759506 B2	17-04-2003
			AU 3185399 A	18-10-1999
			CA 2326126 A1	07-10-1999
			EP 1084032 A1	21-03-2001
			JP 2002509994 T	02-04-2002
			NZ 506803 A	29-04-2003
			WO 9950062 A1	07-10-1999
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US 3082118	A	19-03-1963	NONE	
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From the  
INTERNATIONAL SEARCHING AUTHORITY

PCT

**CORRECTED VERSION**

WRITTEN OPINION OF THE  
INTERNATIONAL SEARCHING AUTHORITY  
(PCT Rule 43bis.1)

To:

Date of mailing  
(day/month/year) see form PCT/ISA/210 (second sheet)

Applicant's or agent's file reference  
see form PCT/ISA/220

**FOR FURTHER ACTION**  
See paragraph 2 below

International application No.  
PCT/GB2004/004738

International filing date (day/month/year)  
10.11.2004

Priority date (day/month/year)  
28.11.2003

International Patent Classification (IPC) or both national classification and IPC  
D06M13/432, D06M16/00, D06M15/423, D06M15/41, D06M11/13, D06M11/55, A01N47/44, A61L2/16

Applicant  
ARCH UK BIOCIDES LIMITED

1. This opinion contains indications relating to the following items:

- ☒ Box No. I Basis of the opinion
- ☐ Box No. II Priority
- ☐ Box No. III Non-establishment of opinion with regard to novelty, inventive step and industrial applicability
- ☐ Box No. IV Lack of unity of invention
- ☒ Box No. V Reasoned statement under Rule 43bis.1(a)(i) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement
- ☐ Box No. VI Certain documents cited
- ☐ Box No. VII Certain defects in the international application
- ☐ Box No. VIII Certain observations on the international application

2. **FURTHER ACTION**

If a demand for international preliminary examination is made, this opinion will usually be considered to be a written opinion of the International Preliminary Examining Authority ("IPEA"). However, this does not apply where the applicant chooses an Authority other than this one to be the IPEA and the chosen IPEA has notified the International Bureau under Rule 66.1bis(b) that written opinions of this International Searching Authority will not be so considered.

If this opinion is, as provided above, considered to be a written opinion of the IPEA, the applicant is invited to submit to the IPEA a written reply together, where appropriate, with amendments, before the expiration of three months from the date of mailing of Form PCT/ISA/220 or before the expiration of 22 months from the priority date, whichever expires later.

For further options, see Form PCT/ISA/220.

3. For further details, see notes to Form PCT/ISA/220.

Name and mailing address of the ISA:



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WRITTEN OPINION OF THE  
INTERNATIONAL SEARCHING AUTHORITYInternational application No.  
PCT/GB2004/004738

P9 Rec'd PCT/PTO 25 MAY 2006

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Box No. I Basis of the opinion

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1. With regard to the **language**, this opinion has been established on the basis of the international application in the language in which it was filed, unless otherwise indicated under this item.
  - ☐ This opinion has been established on the basis of a translation from the original language into the following language , which is the language of a translation furnished for the purposes of international search (under Rules 12.3 and 23.1(b)).
2. With regard to any **nucleotide and/or amino acid sequence** disclosed in the international application and necessary to the claimed invention, this opinion has been established on the basis of:
  - a. type of material:
    - ☐ a sequence listing
    - ☐ table(s) related to the sequence listing
  - b. format of material:
    - ☐ in written format
    - ☐ in computer readable form
  - c. time of filing/furnishing:
    - ☐ contained in the international application as filed.
    - ☐ filed together with the international application in computer readable form.
    - ☐ furnished subsequently to this Authority for the purposes of search.
3. ☐ In addition, in the case that more than one version or copy of a sequence listing and/or table relating thereto has been filed or furnished, the required statements that the information in the subsequent or additional copies is identical to that in the application as filed or does not go beyond the application as filed, as appropriate, were furnished.
4. Additional comments:

**WRITTEN OPINION OF THE  
INTERNATIONAL SEARCHING AUTHORITY**

International application No.  
PCT/GB2004/004738

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**Box No. V Reasoned statement under Rule 43*bis*.1(a)(i) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement**

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**1. Statement**

Novelty (N)	Yes: Claims	8,11,17,18
	No: Claims	1-7,9,10,12-16,19-26
Inventive step (IS)	Yes: Claims	
	No: Claims	1-26
Industrial applicability (IA)	Yes: Claims	1-26
	No: Claims	

**2. Citations and explanations**

**see separate sheet**

**Re Item V**

**Reasoned statement with regard to novelty, inventive step or industrial applicability;  
citations and explanations supporting such statement**

1. Reference is made to the following documents:

D1: WO 95/12021 A

D2: PATENT ABSTRACTS OF JAPAN vol. 016, no. 156 (C-0930), 16 April 1992 (1992-04-16) & JP 04 011076 A (UNITIKA LTD), 16 January 1992 (1992-01-16)

D3: US 2001/021616 A1

D4: US-A-3 082 118

2. The document D1 discloses an antimicrobial treatment of textile materials wherein the material is treated with an antimicrobial agent, adjuvants as phenol-formaldehyde or urea glyoxal resins and with oxalic acid (see D1 whole document).

In view of D1 the subject matter of claims 19 to 26 does not fulfil the requirements of Articles 33(2) and 33(3) PCT.

Document D2 discloses the production of antimicrobial fabric wherein the fabric composed of synthetic fibre (polyamide, polyester), is subjected to dipping treatment in a solution comprising an antimicrobial agent, a self-cross linkable resin and a catalyst.

In view of D2 the subject matter of claims 19 to 26 does not fulfil the requirements of Articles 33(2) and 33(3) PCT and the subject matter of claims 1 to 18 does nor fulfil the requirements of Article 33(3) PCT.

Document D3 describes the use of an aqueous composition comprising a self-cross linkable resin, a catalyst and an antimicrobial active agent (see D3: p.64, 65, 72, 74, 120, 124 - 127, 131).

In view of D3 the subject matter of claims 1 to 7, 9, 10 and 12 dose nor fulfil the requirements of Articles 33(2) and 33(3) PCT.



**WRITTEN OPINION OF THE  
INTERNATIONAL SEARCHING  
AUTHORITY (SEPARATE SHEET)**

International application No.

PCT/GB2004/004738

Document D4 relates to a method for inhibiting the growth of microorganism of fabric prepared from nylon, polyester, acrylic fibres wherein the material is treated with a composition comprising the same compounds as claimed in claim 1 of the current application (see D4: whole document).

In view of D4 the subject matter of independent claims 1, 3, 13, 15 and 19 to 26 does not fulfil the requirements of Articles 33(2) and 33(3) PCT.